

NPG12-90Ah 12V90Ah

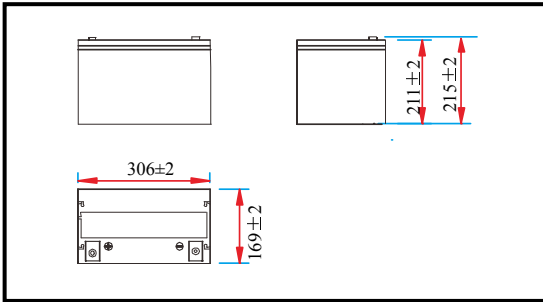
Valve Regulated Lead Acid Battery



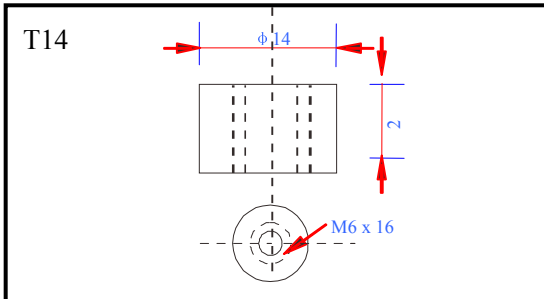
Specifications

Nominal voltage		12V (6 cells per unit)
Rated capacity (10HR)		90Ah/10.8V
Dimensions	Length	306±2mm (12.05inch)
	Width	169±2mm (6.65inch)
	Height	211±2mm (8.31inch)
	Total height	215±2mm (8.46inch)
Approx. weight		28.50kg (62.80lbs)±3%

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	10HR (10.8V)	90Ah
	3HR (10.8V)	67.5Ah
	1HR (10.5V)	50Ah
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 5.5mΩ
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining capacity: 91%
	6 months	Remaining capacity: 82%
	12 months	Remaining capacity: 65%
Nominal operating temperature		25°C±3°C (77°F±5°F)
Operating temperature range	Discharge	-15°C~50°C (5°F~122°F)
	Charge	-10°C~50°C (14°F~122°F)
	Storage	-20°C~50°C (-4°F~122°F)
Float charging voltage (25°C)		13.50 to 13.80V Temperature compensation: -18mV/°C/Block
Cyclic charging voltage (25°C)		14.50 to 14.70V Temperature compensation: -30mV/°C/Block
Maximum charging current		18A
Maximum discharge current		800A (5 sec.)
Design life	12 years for floating (25°C)	
	Eurobat (20°C): 10-12 years, long life.	

Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Gel	Rubber	Copper

Constant current discharge characteristics unit: Ampere/Block (at 25°C, 77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	176	144	87.3	54.0	32.9	23.4	18.4	15.6	11.0	9.16	4.86
1.67V/cell	170	141	85.6	53.2	32.7	23.3	18.3	15.5	11.0	9.14	4.85
1.70V/cell	163	135	82.9	51.8	32.4	23.1	18.1	15.4	10.9	9.12	4.83
1.75V/cell	156	131	80.9	50.2	31.9	23.0	18.0	15.3	10.8	9.06	4.80
1.80V/cell	147	124	78.0	48.6	31.1	22.5	17.5	14.8	10.5	9.00	4.77

Constant power discharge characteristics unit: Watt/Block (at 25°C, 77°F)

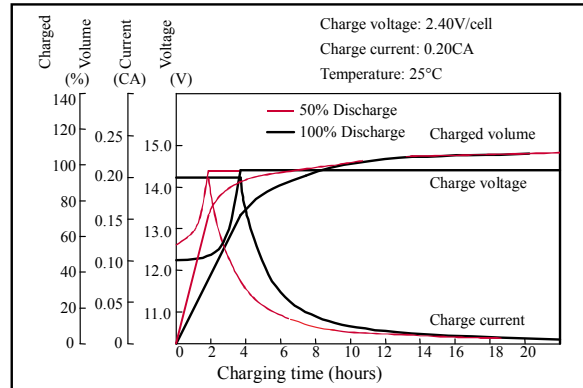
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	1895	1581	980	616	381	275	216	184	131	109	58.3
1.67V/cell	1839	1543	960	606	379	274	215	183	130	109	58.2
1.70V/cell	1763	1486	931	591	375	272	213	182	129	109	58.0
1.75V/cell	1687	1436	908	573	370	270	212	181	128	108	57.6
1.80V/cell	1592	1360	875	554	360	264	205	175	124	107	57.2

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

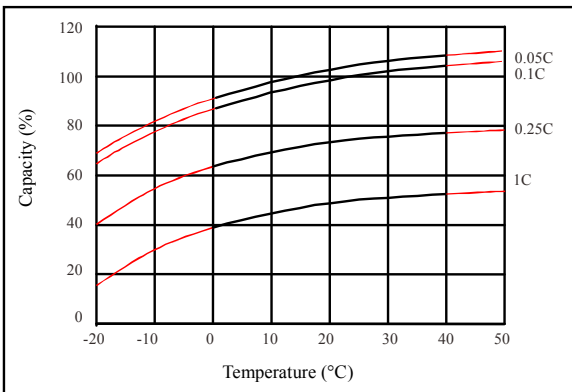
Discharge characteristics (25°C)



Charging characteristics (25°C)



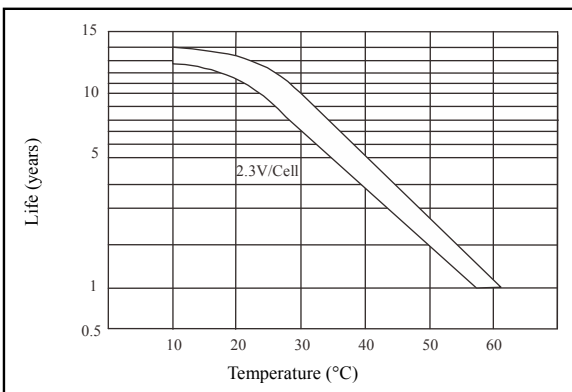
Temperature effects on capacity



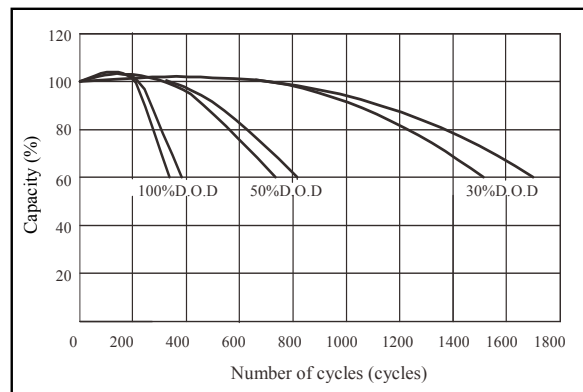
Self-discharge characteristics



Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Relationship for charging voltage and temperature

